

WHAT IS CLAIMED IS:

1. A method of therapeutically treating a disease characterized by an amyloid deposit of A $\beta$  in a patient, comprising:
  - administering an A $\beta$  peptide in a regime effective to induce an immune response comprising antibodies to the A $\beta$  peptide and thereby therapeutically treat the disease in the patient; and
  - monitoring the patient for the immune response, wherein the monitoring comprises detecting antibodies having A $\beta$  binding specificity.
2. The method of claim 1, wherein the patient is a human.
3. The method of claim 1, wherein the disease is Alzheimer's disease.
4. The method of any one of claims 1-3, wherein the patient is asymptomatic.
5. The method of any one of claims 1-3, wherein the patient is under 50.
6. The method of any one of claims 1-3, wherein the patient has inherited risk factors indicating susceptibility to Alzheimer's disease.
7. The method of any one of claims 1-3, wherein the patient has no known risk factors for Alzheimer's disease.
8. The method of any one of claims 1-3, wherein the dose of the A $\beta$  peptide administered to the patient is greater than 10  $\mu$ g.
9. The method of any one of claims 1-3, wherein the dose of the A $\beta$  peptide administered to the patient is at least 20  $\mu$ g.
10. The method of any one of claims 1-3, wherein the dose of the A $\beta$  peptide administered to the patient is at least 50  $\mu$ g.

11. The method of any one of claims 1-3, wherein the dose of the A $\beta$  peptide administered to the patient is at least 100  $\mu$ g.

12. The method of any one of claims 1-3, wherein the A $\beta$  peptide is administered in aggregated form.

13. The method of any one of claims 1-3, wherein the A $\beta$  peptide is administered orally, subcutaneously, intramuscularly, topically or intravenously.

14. The method of any one of claims 1-3, wherein the A $\beta$  peptide is administered intramuscularly or subcutaneously.

15. The method of claim 1, wherein the A $\beta$  peptide is administered with GM-CSF in the regime.

16. The method of claim 1, further comprising administering an adjuvant, wherein the adjuvant enhances the immune response to the A $\beta$  peptide.

17. The method of claim 16, wherein the adjuvant and the A $\beta$  peptide are administered together as a composition.

18. The method of claim 16, wherein the adjuvant is administered before the A $\beta$  peptide.

19. The method of claim 16, wherein the adjuvant is administered after the A $\beta$  peptide.

20. The method of claim 16, wherein the adjuvant is alum.

21. The method of claim 16, wherein the adjuvant is QS21.

22. The method of claim 16, wherein the adjuvant is M-CSF.

23. The method of claim 16, wherein the dose of the A $\beta$  peptide is greater than 10  $\mu$ g.

24. The method of claim 16, wherein the dose of the A $\beta$  peptide is at least 20  $\mu$ g.
25. The method of claim 16, wherein the dose of the A $\beta$  peptide is at least 50  $\mu$ g.
26. The method of claim 16, wherein the dose of the A $\beta$  peptide is at least 100  $\mu$ g.
27. The method of claim 16, wherein the A $\beta$  peptide is A $\beta$ 43.
28. The method of claim 27, wherein the A $\beta$  peptide is SEQ ID NO:1.
29. The method of claim 16, wherein the A $\beta$  peptide is A $\beta$ 42.
30. The method of claim 29, wherein the A $\beta$  consists of amino acids residues 1-42 of SEQ ID NO:1.
  31. The method of claim 16, wherein the A $\beta$  peptide is A $\beta$ 41.
  32. The method of claim 31, wherein the A $\beta$  consists of amino acids residues 1-41 of SEQ ID NO:1.
    33. The method of claim 16, wherein the A $\beta$  peptide is A $\beta$ 40.
    34. The method of claim 33, wherein the A $\beta$  consists of amino acids residues 1-40 of SEQ ID NO:1.
  35. The method of claim 16, wherein the A $\beta$  peptide is A $\beta$ 39.
  36. The method of claim 35, wherein the A $\beta$  consists of amino acids residues 1-39 of SEQ ID NO:1.
37. A method of prophylaxis of a disease characterized by an amyloid deposit of A $\beta$  in a patient, comprising:

administering an A $\beta$  peptide in a regime effective to induce an immune response comprising antibodies to the A $\beta$  peptide and thereby effect prophylaxis of the disease in the patient; and

monitoring the patient for the immune response, wherein the monitoring comprises detecting antibodies having A $\beta$  binding specificity.

38. The method of claim 37, wherein the patient is a human.
39. The method of claim 37, wherein the disease is Alzheimer's disease.
40. The method of any one of claims 37-39, wherein the patient is asymptomatic.
41. The method of any one of claims 37-39, wherein the patient is under 50.
42. The method of any one of claims 37-39, wherein the patient has inherited risk factors indicating susceptibility to Alzheimer's disease.
43. The method of any one of claims 37-39, wherein the patient has no known risk factors for Alzheimer's disease.
44. The method of any one of claims 37-39, wherein the dose of the A $\beta$  peptide administered to the patient is greater than 10  $\mu$ g.
45. The method of any one of claims 37-39, wherein the dose of the A $\beta$  peptide administered to the patient is at least 20  $\mu$ g.
46. The method of any one of claim 37-39, wherein the dose of the A $\beta$  peptide administered to the patient is at least 50  $\mu$ g.
47. The method of any one of claims 37-39, wherein the dose of the A $\beta$  peptide administered to the patient is at least 100  $\mu$ g.

48. The method of any one of claims 37-39, wherein the A $\beta$  peptide is administered in aggregated form.

49. The method of any one of claims 37-39, wherein the A $\beta$  peptide is administered orally, subcutaneously, intramuscularly, topically or intravenously.

50. The method of any one of claims 37-39, wherein the A $\beta$  peptide is administered intramuscularly or subcutaneously.

51. The method of claim 37, wherein the A $\beta$  peptide is administered with GM-CSF in the regime.

52. The method of claim 37, further comprising administering an adjuvant, wherein the adjuvant enhances the immune response to the A $\beta$  peptide.

53. The method of claim 52, wherein the adjuvant and the A $\beta$  peptide are administered together as a composition.

54. The method of claim 52, wherein the adjuvant is administered before the A $\beta$  peptide.

55. The method of claim 52, wherein the adjuvant is administered after the A $\beta$  peptide.

56. The method of claim 52, wherein the adjuvant is alum.

57. The method of claim 52, wherein the adjuvant is QS21.

58. The method of claim 52, wherein the adjuvant is M-CSF.

59. The method of claim 52, wherein the dose of the A $\beta$  peptide is greater than 10  $\mu$ g.

60. The method of claim 52, wherein the dose of the A $\beta$  peptide is at least 20  $\mu$ g.

61. The method of claim 52, wherein the dose of the A $\beta$  peptide is at least 50  $\mu$ g.
62. The method of claim 52, wherein the dose of the A $\beta$  peptide is at least 100  $\mu$ g.
63. The method of claim 52, wherein the A $\beta$  peptide is A $\beta$ 43.
64. The method of claim 63, wherein the A $\beta$  peptide is SEQ ID NO:1.
65. The method of claim 52, wherein the A $\beta$  peptide is A $\beta$ 42.
66. The method of claim 65, wherein the A $\beta$  consists of amino acids residues 1-42 of SEQ ID NO:1.
67. The method of claim 52, wherein the A $\beta$  peptide is A $\beta$ 41.
68. The method of claim 67, wherein the A $\beta$  consists of amino acids residues 1-42 of SEQ ID NO:1.
69. The method of claim 52, wherein the A $\beta$  peptide is A $\beta$ 40.
70. The method of claim 69, wherein the A $\beta$  consists of amino acids residues 1-40 of SEQ ID NO:1.
71. The method of claim 52, wherein the A $\beta$  peptide is A $\beta$ 39.
72. The method of claim 71, wherein the A $\beta$  consists of amino acids residues 1-39 of SEQ ID NO:1.